The Mint of the Anited States,

Assay Department, May 25, 1873

Siv. I have carefully considered the statements of Mr F. C. Blake, Supl. of the Venne " Lead Co, and am commed that we have reported their bars Correctly. Each bar is sampled by an inside Cuttong and where the duration is unusual, we rupial. All the bars in pustion (except a few which for coinage gold) have been made expents ingots, and passed. His is the best general test of our and is ni some suspects a buter cheese than a reason of the bahs muld be. bar assays; The Mellin & Refiner calculates his mills for og 9 fine. The fact that the ingets made fini these bars arraged a little under that figure proves that our bar assays were reported as the tighest possible mark. In the extreme case of bars 5434 and 5435 aported by us at 9962 the ingsto made from them resulted a Shade under their calculated finings & 99. This ought to be sufficient.

2

The Mint of the United States,

AT

PHILADELPHIA, PENN.,

Assay Department,

, 187 .

But I must add,

- 1. It is not Easy to make homogenous melts
 of 12000 Owners, Experially when had is present:
- The variable personal orror" appears exaggerand because we only report to the half thousandth. Hus, the distinction between a weak 998 and astrong 9972 is not practical; but the latter would be reported lower by a half thursande instead of a quarter or an Eighthe which it really might be. her nistance; bas 5245-8 accapes 9974; 5249+50,998; 525/452,9974. now, the last two were reported 998 or a 4 above the assay, by way of compensating in some measure the loss in quarters on the first four.
- 3. But if dead uniformity be such a diciduation the whole lot might have been reported at 997 ½ without intence to any of the titles. I believe Music Nandy Hunise would rather have

The Mint of the United States,

AI

PHILADELPHIA, PENN.,

Assay Department,

, 187 .

the benefit of such fractions as we come safely give.

4. There much be a reason who Penne Lead bo's bars nearly always show these variations, and the products of some order refineries mearly always show absolute uniformity and are fully up to their stamps. The Baton Heolorado we report in solid columns of from twenty to fifty bars at 999. The night melts prove both; and the "lack of uniformity in these differences" noted by Im Blake carries its own complaint back to the melting pool.

There are cases where we find and report Pa. head be bars above the stamp, as in 5566 to 5592. We do not hear complaints in cases of this kind and want of uniformity which accults in fair to the principal is not objected to.

Very Respectfully

Jacob B. Eckfelds

Hue to honden Sunden Supl.

M. S. Mut. Phile May 25783

Jacob B. Eckfelds Assayer,

Supt Pa Lead Co. Comhlaving incorrect assays y Silver Bus Sold of Standy & poisse

May 25783

[Abstract:] Reply to F.C. Blake, Supt. Pa. Lead Co., complaining of incorrect assays...

The Mint of the United States, At Philadelphia, Penn., Assay Department, May 25, 1883

Sir:

I have carefully considered the statements of Mr. F.C. Blake, Supt. of the Penna. Lead Co, and am convinced that we have reported their bars correctly. Each bar is sampled by an inside cutting and where the duration is unusual, we repeat.

All the bars in question (except a few which contained gold) have been made up into ingots, for coinage and passed. This is the best general test of our bar assays; and is in some respects a better check than a reassay of the bars would be. The Melter & Refiner calculates his melts for 899 fine. The fact that the ingots made from these bars averaged a little under that figure proves that our bar assays were reported at the highest possible mark. In the extreme case of bars 5434 and 5435 reported by us at 996 ½ the ingots made from them resulted a shade under their calculated fineness 899. This ought to be sufficient.

But I must add,

- 1. It is not easy to make homogenous melts of 12000 ounces, especially when lead is present.
- 2. The "variable personal error" appears exaggerated because we only report to the <u>half</u> thousandth. Thus, the distinction between a weak 998 and a strong 997 ¾ is not practical; but the latter would be reported lower by <u>a half</u> thousandth instead of a quarter or an eighth which it really might be. For instance: bars 5245 8 assayed 997 ¾; 5249 & 50, 998; 5251 & 52, 997 ¾. Now, the last two were reported 998 or a ¼ above the assay, by way of compensating in some measure the loss in quarters on the first four.
- 3. But if dead uniformity be such a diseducation the whole lot might have been reported at 997 ½ without evidence to any of the titles. I believe Messrs. Handy & Cunise would rather have the benefit of such fractions as we can safely give.
- 4. There <u>must be a reason</u> why Penna. Lead Co.'s bars nearly always show these variations, and the products of some other refineries nearly always show absolute uniformity and are fully up to their stamp. The Boston & Colorado we report in solid columns of from twenty to fifty bars at 999. The ingot melts prove both; and the "lack of uniformity in those differences" noted by Mr. Blake carries its own complaint back to the melting pot.

5. There are cases where we find and report Pa. Lead Co. bars above the stamp, as in 5566 to 5592. We do not hear complaints in cases of this kind and what of uniformity which results in gain to the principal is not objected to.

Very Respectfully, Jacob B. Eckfeldt Assayer

Hon. A. Loudon Snowden, Supt.